

REMARKS

Claim Objections

Claims 1, 12 and 16 were objected to, as the recitation of “line width parameter” and “actual line width” were not clear to what was applicant’s intended meaning. Applicant submits that the terms are clear from the claim language as interpreted by the specification. “Line width parameter” and “actual line width” are clearly defined in the specification. See, for example, paragraph 0020.

Claim Rejections Under 35 U.S.C. § 102

Claims 1 and 3-11 were rejected under 35 U.S.C. § 102(b) as being unpatentable by Majors (U.S. Patent No. 5,581,475). Applicant respectfully traverses this rejection. Majors is directed to a system that computes maximum currents through branches of a circuit, and uses the maximum currents to allow or require adjustment of gaps between lines. This system does not determine and work with individual lines having a line width marker, a line width parameter, and an actual line width. Instead, as is clear from the specification, the system of Majors works with general branches and areas of a circuit, and uses only maximum currents flowing through an area or branch to adjust gaps between lines or widths generally, but does not have individual line markers as is required in the present claim. Applicant has reviewed Majors and can find no mention of individual lines being assigned line width markers and line width parameters that are checked against actual laid out line widths to compare specific line width parameters with actual line widths, as is required in claim 1. The assertions of the office action that Majors shows such elements are shown to be incorrect by a reading of Majors, which uses only current calculations through branches and areas, instead of individual markings of lines with a line width marker and a line width parameter.

Still further, the only lines extracted in the design rule check of the present claim 1 are those lines that have a line width marker. Since the line width marker is not present in Majors, which instead relies only on area and branch current calculations, that element of extracting only those lines that have a line width marker is also not present in Majors. Since Majors does not contain each and every element of claim 1, Applicant respectfully submits that claim 1 is allowable. Claims 3-11 depend from and further define patentably distinct claim 1, and are also believed allowable.

Further, claim 3 recites “generating an error condition when the actual line width is less than the line width parameter.” Since no line width parameter is shown in Majors, which instead only shows a current calculation for an area or branch, and does not contain any markings for individual lines, no error condition based on actual line width is present in Majors.

Claim 5 recites that each line having a width marker has a width greater than a minimum width for that line. Majors does not check individual lines. Also, in the present claim, each line that is checked is required by claim 5 to have a width greater than a minimum width for that line. Majors checks all areas and branches, not individual lines, and certainly not only those lines that have been identified with a line width marker that is not present in Majors.

Claim 7 requires not only that individual lines have been extracted, which Majors does not do, but also that each extracted line has a line width marker. This is not shown or taught in Majors.

Claim Rejections Under 35 U.S.C. § 103

Claims 2 and 12-19 were rejected under 35 U.S.C. §103(a), as being unpatentable over Majors in view of Suzuki (U. S. Patent No. 5,706,295). Applicant respectfully traverses this rejection. Applicant has shown above how Majors differs from the individual line approach of the present claims, and incorporates those remarks herein. They are not repeated for the purposes of brevity. Claim 2 depends from claim 1 which has been shown to be patentable, and is also believed patentable.

Similarly, claims 12 and 16 contain many recitations similar to or identical to those contained in claim 1 which have been shown above to be patentable. The arguments made above with respect to claim 1 apply equally to claims 12 and 16, but are not repeated herein for the purposes of brevity. Still further, col. 7, line 66 to col. 8, line 41 of Suzuki describe only how to determine whether an error identified by a design rule check is a false error. The error is still generated in the design rule check, but it is designated as a false error if the area in which the error occurs is outside of a “region-specified mask pattern data.” In contrast, claims 12 and 16 recite, respectively, “excluding the line if it is near or above a transistor” and “excluding from comparing any portion of the line near or above a transistor.” This differs from Suzuki, which still performs the comparison, but then requires another step to determine whether the generated error is a false error.

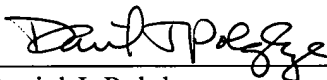
Claims 13-15 and 17-19 depend from and further define one of patentably distinct claims 12 or 16, and are also believed allowable.

CONCLUSION

Applicant respectfully requests that the rejections be withdrawn, and the case proceed to allowance. If the Examiner has any questions or concerns regarding this application, please contact the undersigned at (612) 312-2203.

Respectfully submitted,

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